

COUNTYWIDE TRUNKED RADIO SYSTEM

UPDATE - September, 2003

Trunked System operates despite power failures

While the August 14 electrical power outage throughout the northeastern U.S. has triggered nationwide concerns about reliability of the electrical power grid, trunked system members should know that the system is designed to continue to operate normally even in the face of such an event.

Each of the trunked system's seven tower sites is equipped with standby electrical generator, which will automatically power the site within seconds of a power failure. Generators are tested, monitored and logged under simulated power failure conditions every week to keep them in top shape, and to identify any weaknesses in advance. The generator at the main tower in Waukesha is also equipped with automatic dual-fuel capability, meaning that it will instantly transfer to a 1000 gallon LP gas tank in the event that there is a simultaneous failure of both natural gas *and* electrical power.

All sites are heavily protected against power surges and spikes, and systems are in place to automatically notify County technicians of many events, including utility power outage, or malfunctions in systems such as surge suppression, backup power, or heat or cooling. Uninterruptible Power Supplies also are located at every site, powering critical devices during the few seconds it takes after a failure the generator to go online. The system's "anchor" sites (Waukesha and Delafield) have large-capacity UPSs which maintain continuous power to all trunked system equipment during this gap.

The standby generator systems aren't there just for the massive grid failure, but also for local power outages which are surprisingly common. Since July, for example, there have been seven utility power failures at system trunked system tower sites, lasting anywhere from four minutes to more than sixteen hours. In all cases, the system remained 100% operational, and no service degradation was reported by users.

While it may never be possible to absolutely eliminate all possibility of failures from utility outages, trunked system members should be assured that the system's design, plus stringent ongoing testing and maintenance, will minimize the chance that a widescale grid failure will disrupt trunked communications.

County secures grant funding to initiate critical-building signal enhancement program

In response to users' escalating needs for public-safety radio communications, and heightened concerns over homeland security, the County has initiated a program to enhance trunked system coverage in carefully-selected, large high-density buildings. Federal funding has been secured to provide in-building signal amplification hardware for certain critical buildings such as schools, municipal buildings and hospitals which have been tested as especially difficult for radio signals to penetrate.

The first round of funding, coordinated by Waukesha County Emergency Management, will fund hardware purchases to enhance portions of seven high school campuses, certain portions of two police stations, and one hospital emergency room. A second round of funding is expected to provide enhancements to additional buildings.

The buildings were selected after physical signal strength tests were conducted earlier this year. Under the program, hardware installation costs remain the responsibility of each building's respective local government, though they can engage Waukesha County Radio Services to implement each system. The in-building amplification technology has been proven in several pilot projects involving heavily-shielded basement areas of County buildings.

Radio battery discounts available to TRS members

Waukesha County Radio Services has obtained advantageous pricing on Motorola replacement batteries for trunked handheld radios and is extending this pricing to trunked system members. Prices for standard model (non Factory Mutual) batteries are:

LTS-2000 battery \$18.98 (list price: \$84.00)

MTS-2000 battery \$21.85 (list price: \$110.00)

Members can call (262) 548-7602 to order batteries, or for additional information.

*The Trunked Radio System Update newsletter is distributed by Waukesha County Radio Services,
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